Orange Industry of Southern California

GRADING ORANGES IN A PACKING HOUSE

PICKING ORANGES

BIRD'S EYE VIEW OF ORANGE GROVES

EXTERIOR OF AN ORANGE PACKING HOUSE.

INTERIOR OF AN ORANGE PACKING HOUSE

AT the very time the winter winds are fiercest in northern latitudes and the snows are drifting among the apple trees and eddying around the snug farm houses of New England and the middle west the orange comes to its luscious prime under the cloudless skies and in the genial air of southern California and hangs pendant, like a globe of molten gold, from the ever-green branches, ready for the hand of the harvester.

From early in December, when fruit is picked for the Christmas market, until May is the busiest season of the year for the orange grower, and all through these months one may see among the groves that everywhere crowd up to the highways in the "orange belt" groups of pickers—tawny Mexicans, little brown men from Japan, and occasionally a few whites, deftly clipping the fruit and placing it carefully in canvas bags suspended from their shoulders. The navel orange tree, the prevailing type, is of low stature, seldom over ten or twelve feet in height, so that the greater part of the fruit is easily reached from the ground; for that in higher branches the stepladder comes into play. From the canvas bags the fruit is transferred into small boxes placed at convenient points, to be picked up later by the wagon men and hauled away to the packing house. Each of these small boxes contains an average of 200 oranges, and a skilled picker will fill from 75 to 100 boxes a day, receiving for each box the sum of 3 cents.

An orange grove in its prime will yield from four to six boxes per tree, and the groves will average about a hundred trees to the acre. A ten-acre orchard will therefore yield in a good season about 4,500 boxes. The orange is easily injured and rendered unmarketable by rough handling, and great care must be exercised all through the process of harvesting to avoid loss from this source. Japanese pickers are favored among the orange growers not only because of the neatness, care and skill which mark their work, but because of their sobriety and faithfulness and their prompt and cheerful compliance with all orders and regulations. In most of these respects their conduct stands out in sharp contrast with that of the average white laborer of their class.

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From the orchards the boxes are transported in great open vans to the packing houses, which are generally situated in convenient proximity to some railroad siding. An orange packing house in full operation is pleasant to the eyes and to other senses as well, redolent as it is with the perfume of the garnered fruit lying about in heaps like drifts of solidified sunshine. The operations are simple, quiet and largely automatic, with due care at each step of the process to avoid injury to the fruit.

If the oranges need washing, which is not often the case, they are gently dumped into a shallow vat, where they are moved along by a traveling belt between brushes submerged in water, and carried thence up to a platform to be dried in the sun. If they have no need of this cleansing process they are dumped into another capacious box or apron, to be caught and carried by another slow-moving belt up to a platform, where they are passed along under the inspection of another group of workers, who pick out the imperfect fruit, or "culls," as they are called, and deposit them in canvas chutes for other disposition.

From this point the stream, freed from its imperfections, flows on and down a gentle incline to a lower level, after being caught up on the way in a pocket-like contrivance in which the weight of the oranges is taken and registered. On the lower level the oranges, which still, like poor Joe, are "allus a-movin' on," are made to separate themselves into the three sizes or principal grades by which they are known to the market—"standard," "choice" and "fancy." This is done by the simple device of a long trough or shallow wooden channel, with a slit at the bottom running lengthwise and varying in width according to the sizing desired. As the little rivulet of oranges flows along this trough the separation is effected by the fruit dropping through the slit according to size, the smallest first, and last of all the golden beauties which are labeled "fancy."

As thus they separate themselves the oranges roll down through side chutes into shallow canvas boxes, whence they are picked up by the deft and nimble fingers of other workers, usually young women, wrapped in soft paper and packed in the boxes, not to be seen again until opened for sale in the eastern markets. From the packers the boxes are trundled to a long bench, where the open side is closed with a few quick strokes of a hammer, and thence on into a convenient car, where, firmly secured by crosswise slats, they are ready for their long journey over mountain and plain to the orange lovers of the middle west and the eastern seaboard.

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There are many other phases of the industry from the setting out of the nursling tree to the marketing of the product, equally interesting and worthy of attention. The trees are transferred from the nursery to the orchard when they are about two years old and are in fairly good bearing condition when they are five years of age. The once famous Wolfskill orange orchard near Los Angeles, the first one planted for profit in California, is now over fifty years old. Many small orchards of seedlings planted in the early sixties are still flourishing. One such, in the town of Sonoma, has trees three feet in circumference which have borne in recent seasons as high as twenty-five boxes each. The mother of all the navel orange trees in Southern California, planted by Mr. Luther C. Tibbets at Riverside in 1873, is still flourishing and a few weeks ago it was hanging low with fruit of a tempting size and quality.

The orange growers of Riverside do well to guard this tree with jealous care and watchful pride, for out of it has grown the orange industry as it exists today in California, and which now represents a direct investment of over $50,000,000. The so-called "citrus fruit belt" extends from San Diego to Tehama county, embracing an area of about 1,500,000 acres. Within this limit may be found nearly all the 70,000 acres of orange trees now under culture, in addition to about 1,500 acres of lemons.

Riverside has gained world-wide fame as the home of the navel orange and it still leads all other sections in the volume of production. Here the orange industry may be seen in its best and happiest estate.

From one elevated point near that town one may see not less than 30,000 acres of this delectable fruit, or nearly one-half the total orange acreage of California. One company of Riverside growers alone has under its management 8,800 acres of citrus fruits, chiefly oranges, and its shipments of oranges and lemons last year reached a total of over 1,200 carloads. Other centers of the orange belt are Redlands, Pomona, Ontario, Covina, Duarto and Monrovia, each of which has its own packing houses and its local associations of growers.

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The following statistics will convey some idea of the dimensions of the citrus fruit industry in California. According to a table compiled by the California Fruit Grower, the output for the past four years was as follows:

Season.	Carloads.	Boxes.
1901-02	19,180	6,904,800
1902-03	23,871	8,593,560
1903-04	29,399	10,480,488
1904-05	31,422	11,105,864

The citrus fruit crop for the present year is variously estimated at from 24,000 to 35,000 carloads. This crop brings to the growers a yearly revenue of from $15,000,000 to $18,000,000, an amount nearly equal to the gold output of the state, which in 1904 was $19,109,600. In all probability the time will soon come when the gold minted from the sunshine of California will exceed that dug out of its mines, for there is good reason for the belief that when the Panama canal is completed and better and cheaper railroad transportation is afforded to the east the citrus fruit business will enter upon a new and far more prosperous era of existence. The orange has the inestimable advantage in its favor of a more limited area of production than any other staple fruit, while the popular demand for it increases rapidly with the years.

The system of irrigation in vogue among the citrus fruit growers might be made the subject of an interesting chapter by itself. In southern California, where, during from six to eight months, not a drop of rain falls, it is true in a very literal sense that "water is life," and it must be had at any cost. Fortunately it is not difficult to tap a water vein almost anywhere in the orange belt with artesian wells, or to find an ample supply for storage purposes in the high mountain ranges threading the country, so that while a vast amount of money in the total has been expended in the development of an irrigation system the cost per acre to the grower is not a burdensome one. In the most favorable districts irrigation costs about $5 per acre.

In the process of watering the orchards two systems are adopted, the furrow and the basin. The former, which is the more common, consists in plowing furrows between the rows of trees, down which the water brought to the orchard, either by pipes or in a canal, is allowed to flow gently and gradually until the ground is thoroughly saturated. A later and what is believed by many to be a better method, is the basin system. This consists in hollowing out around each tree a basin equal in area to the spread of the branches. Into each of these basins the water is made to flow until all have been filled and the soil will absorb no more. Care is taken that the water does not come in contact with the trunks of the trees, which would result in grave injury. This process is repeated from two to six times during the rainless season, according to the duration of the dry period, the location and nature of the soil. It is an old saying among growers that "the orange tree must have its feet dry;" it loves the sunshine with a never ending love and will flourish and yield its sweetest fruit under conditions where many other tree growths would perish.

To a student of economics nothing in the orange industry is so interesting as the business system under which the bulk of the product is marketed. An organization of shippers known as the Citrus Union handles about 20 per cent of the product on a commission basis, but more than 50 per cent goes through the hands of the Southern California Fruit Exchange, an association composed wholly of orange growers, directed solely by them and working on a strictly mutual and co-operative foundation. The exchange has its headquarters in Los Angeles, with a central board of directors made up of representatives from the seventy-five or more local exchanges scattered throughout the citrus belt. Through this central board, acting in co-operation with the boards of the locals, the industry in almost every phase is supervised and directed to the end of eliminating the middleman, economizing in the cost of packing and marketing, controlling the volume and time of output and turning back into the hands of the producer the total income from his crop, minus only the actual expense of handling and transportation.

The exchange represents in combination an amount of capital, a volume of business and a sum of individual and collective influence which, under intelligent and experienced direction, are sufficient to carry great weight in the market places and command the respectful attention, if not the ready compliance, of the railroad corporations. Both in theory and practice it furnishes a striking illustration of the advantages and benefits of the co-operative principle applied to a great industry.

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For many reasons orange growing in southern California has attracted to itself an unusual number of men of high intelligence and a progressive and enterprising spirit. Evidences of this appear in the enthusiastic interest displayed by the growers themselves in the purely scientific phases of orange culture, in the generous support they give to societies devoted to horticultural study and research, and in their readiness to seize upon and utilize in their business to the utmost the latest results of these scientific inquiries. By these means such problems as present themselves in the selection of proper soils, in the best and most economic methods of fertilization, in the propagation of new and improved fruit stock, and in the warfare against insect pests, are met and solved in an effective and, in most cases, a successful way.

In the last-named field of effort—the fight with injurious insects—the California fruit growers lead the world. Acting apparently on the suggestion conveyed in the familiar couplet about the little fleas which "have smaller fleas to bite 'em," they have searched out the insect enemies of their most formidable insect pests and set the bugs to fighting each other, Kilkenny fashion, so effectively that their fruit orchards have been left measurably at peace and comparatively free from such former scourges as the San Jose scale, the mealy bug, the red spider and cottony cushion scale, and other predatory creatures of this ilk, some of which became so formidable that they threatened the virtual extinction of the fruit industry.

In its search for the parasitic enemies of these pests, whose work should keep the balance of nature even, the California Horticultural Society sent its agents to China, Japan, Australia and South Africa, where they captured and brought back colonies of microscopic creatures whose scientific names are enough in themselves to drive any plain American bug into nervous prostration. Thus the San Jose scale, formerly one of the most dreaded enemies of the fruit growers, found itself face to face one day a few years ago with the Aphelinus fuscipennis, and while it did not capitulate on the spot, it began a fight against such odds that today the San Jose scale has lost its terrors for the California orchardist. One tiny insect rejoicing in the name of the Australian ladybird was imported from the land of the Southern Cross and set to work upon the cottony cushion scale with such effect that this pest has also been practically eliminated from the field.

Many interesting, if not thrilling, details might be given of these battles of the bugs in California in which the fruit-growing interests have been benefited to the extent of millions of dollars. It is a struggle in which many of the serried foes of the orchard have met their Waterloo and Appomattoxes; but new scourges are continually appearing, and the warfare, like that against sin, must be waged continually.

MEANING OF INDIAN NAMES IN THE UNITED STATES

THE commission appointed by the government to translate into concise, correct English all Indian names found in the geography of the United States has on its hands a job of great magnitude, as may be comprehended when it is considered that more than 6,000 names, now fixed to various points between Maine and California and the Canadian line and the Rio Grande, commemorate the fact that the red man once was sole possessor of the land. The names of his chiefs and of his tribes are forever fixed in memory. Indian traditions are perpetuated and musical Indian words have been incorporated into our tongue, a legacy of poetry and romance even in this practical age.

Every name the Indian gave meant something. He left to his pale-faced brother the absurdities of prefixing to 2,709 towns and settlements the stale descriptive terms east, west, north, south; he left to the white man the confusion of thirty-three Springfields in one union, not a fifth of which were ever built in a field or by a spring; of Pinevilles without a pine, Oakdales without an oak, Weymouths and Plymouths that are not at the mouth of the Wey, the Plym, or any other river; or Mount Vernons twenty-five strong, many of them without even a hill to their credit, and of 1,100 New Havens, New Yorks, Newtowns and New-every-thing-else, all of which have long since ceased to be new.

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Not so with the Indian. He pitched his wigwam beside the stream. Through the curling waters the long, dark stone on the river's bed looked like otters at play, and forthwith the camping place received the name it bears today—Kalamazoo—"stones-like-otters" in the Indian tongue. Again, he saw on a river bank a pine tree wreathed in flames; for hours it threw its torch-like glare over the landscape, as would have beamed the glow of some council fire fed by attendant warriors, and Potomac that region became, a literal translation of which is "the place of the burning pine, that resembles a council fire." Poughkeepsie is "a safe harbor for small boats;" Norridgewock, "the place of deer;" Ontario, "the village on the mountain;" Saranac, "the river that flows under rock," and Saratoga, "the place of the miraculous waters in a rock."

Similarly, Schenectady is "the river valley beyond the pine trees;" Schoharie is "the tributary that throws its waters strong over and across the main stream;" the Wabash is "a cloud blown forward by an equinoctial wind;" Monongahela is "the falling-in-bank river;" Rappahannock, "the river of quick-rising water," and Toronto, "oak trees rising from the lake." Such words show a wondrous skill in the art of word painting, and their expressive Indian tongue reflects their impressions with a vivid minuteness impossible to more cumbersome English.

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There is no commonplace in Indian names. All of the Indian's terms are picturesque, because alive and full of meaning to him. A thousand examples could be given. Once, before the white man's day, a caving-in of a river bank revealed the huge fossil tusk of some prehistoric monster. At once the river received the name Chemung, "Big Horn," and generations of squaws told to generations of papooses the traditions of the big bones and wide jaws that once had been found there. In 1675 a portion of Maine was visited by a most devastating fire. The Indians at once gave the region the name of Schoodic, the "great burnt lands," perpetuating forever the memory of the terrible disaster. Orinoco is "coiling snake," possibly a reference to the crooked course of the stream, but more probably marking the notable killing of some venomous reptile.

Sometimes it was the physical features that were name-reflected. Thus: Wetumpka is "tumbling waters;" Sandusky, the "cold spring;" Katahdin, the "highest place;" Tioga, "the swift current;" Niagara, the "neck of water;" Nahant is "at the point;" Passumpsick is "much clear water," and Chautauqua is the "foggy place." Sometimes the Indian's names reflected his superstitions. Thus, Manito is "spirit," Montauk is "a manito or spirit tree," and Minnewaukon means the "devil's lake." Sometimes his names celebrate his hunting or fishing exploits. Mackinaw is an abbreviation of a longer word meaning "the great turtle place." Quinsigamond means "the fishing place for pickerel." There are several Ammons, which, as the government has a peculiar penchant for lopping off the terminative syllables of Indian words, may not unreasonably be taken to represent Ammonoosuc, an expressive Indian word meaning "fish-story river," a proof positive that the red man, as well as his successors, was given to telling tall stories about his luck in fishing.

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Even the Indian hates and hereditary feuds find expression in names. The members of a certain Indian tribe, despised for their peacefulness, were in contemptuous parlance Ottawas, "traders," while a fiercely fighting tribe were admiringly termed Eries, or "wildcats," by their enemies. Our Iowas are a corruption of a derisive word signifying "drowsy or sleepy ones," a term given by the warlike Sioux of the north to his quieter red brethren of the plains. The scornful Iroquois called each Algonquin of the New York mountains an "Adirondack," signifying "he eats bark." The latter retorted by dubbing each Iroquois a "Mohawk," or "man eater," a grim testimonial in its way to the fierce and relentless Iroquois character. The family of the Sioux, the famous fighters of the northwest, divided as they were into eight great branches or subtribes, gave to themselves the comprehensive name of Dakotas, "allied together in friendly compact;" but their Indian foemen called them by the bitter term of Sioux, "cut-throats."

The Indian was a born story teller. Every lake and river, every rock and every plain had its story, its incident, its legend. The Indian gave ever those names that recalled these legends to his mind.

Winona, Minnesota, has a beautiful legend. Winona, "first-born daughter," was the child of a stern warrior. He bade her marry one of the notable braves of his people. She loved another. Rather than marry the brave, whom she hated, she threw herself from the cliff of the Malden's Leap, that overlooks the point where the Mississippi's waters flow through Lake Pepin, and beneath the river's turbulent waters found the peace that was denied her on earth. Another Minnesota legend, that of Minnehaha, recalls to most minds Longfellow's famous poem. He, however, took the usual poet's license in the matter. In the real legend, Minnehaha, "laughing water," did not become the bride of Hiawatha, but was crossed in love. In her despair she sought the falls of Minnehaha, after which she had been named. Here, over a precipice sixty feet high, she took the fatal leap.

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All Indian traditions are not sorrowful. Quite the reverse in many cases, as the story of the naming of Wakarusa, Kan., will show. Once a party of Indians on the trail were stopped in their progress by a swollen and angry-looking stream. "Deep water, bad bottom!" grunted the braves, hesitating at the brink of the river, unwilling to turn back, doubting that they could cross. At length an Indian crept up behind his squaw, who was seated on a small Indian pony, and deliberately pushed pony, squaw and all over the bank into the rapid, muddy current, meanwhile looking stolcally on to see whether she would gain the opposite bank in safety or drown before his eyes. The astonished and enraged squaw struck out for midstream, and lo! the waters had but spread over a shallow basin and the danger had been but apparent, not real. Derisively the squaw rose and scornfully shrieked at her liege lord, who had been so willing to have been summarily rid of her: "Wakarusa! Wakarusa!" (Thigh-deep, thigh-deep). And Wakarusa the region has remained until this day.

Tepee City, Squaw Valley and Sachem's Head show that the Indian was once a power, and so, also, do Indianola, Indianapolis, Indian Bay, Indian Bayou, Indian Bottom, Camp and Creek; Indian Diggings, Falls, Gap, Gulch and Head; Indian Mound, Neck, Ridge and River; Indian Rock, Run, Springs and Town; Indian Trail and Indian valley. He has left behind him his kinnikinnick that he used to smoke, his moccasin that he used to wear, medicine lodge that he used to visit, and the wampum for which he bartered his pony or his beaver skins. He has left behind him, also, the Indian names of many familiar objects, though the memory of these meanings has all but been forgotten. Mondamin means corn; wawa, wild goose; opeechee, the robin; Roanoke, a seashell; Chicago, the wild onion; omeeme, a pigeon; wawbeek, a rock, etc.

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The Indian has left behind him hundreds of musical alliterative names, in which the consonant or vowel sounds are doubled. Good examples are Wawaka, Wawasee, Kankakee, Kennekuk, Tuscaloosa, Tallahassee, Ocklocknee, Ohoopee, Oshkosh, Minnetonka, Massabesic, Contoocook, Loogootee and Hatchechubbee. We like to roll his Kennebunk and Cuttyhunk, his Nantucket and Wachusett, his Kickapoo and Tetonka over our tongues, and it would be deplorable indeed if they also should have to go and be translated into "correct and concise" English.

Other historical landmarks closely interwoven with Indian history, but whose names will remain untouched by the commission, the place names that preserve the memory of the early missionaries and explorers, and of the first pioneers, sturdy men of the wilderness, every one of them inured to hardship and skillful in expedient, as he literally took his life in his hand as he ventured among hostile redskins in an unknown land. The names of De Soto, Ponce de Leon, Hudson, Champlain and La Salle, and of Fathers Hennepin and Marquette are interwoven with the very beginnings of our history, just as the names of Fremont, Lewis and Clark are indissolubly linked with the early days of the far west.

TAKING A VOTE.

The Proceedings Occupied Five Columns in The Record.

One of the amusing features of the Senate proceedings is the process of reaching an agreement to take a vote on a certain measure. Take, for instance, the decision to vote on the statehood bill, a proceeding that required unanimous consent. The story is told in five wide columns of the Congressional Record. The ball was opened by Senator Beveridge, who offered a proposition to vote at 4 o'clock on Thursday, the 7th of March. Senator Burrows immediately raised the point that Senator Foraker was not present, and that the Ohio senator was interested in the matter and ought to be consulted. Senator Patterson vouched for Foraker's satisfaction. Then Senator Bacon wanted to make sure that there was no limitation on amedments. Senator Clark of Wyoming wanted it made plain that the time during the last days would not be controlled by those who favored the bill.

At this juncture Senator Foraker entered and wanted the agreement read again, and Senator McCumber discovered a new difficulty which Beveridge agreed to modify. Then Senators Aldrich and Hale had a discussion about the farming out of time in the Senate, in which Clark participated. At this point twenty senators were on the floor trying to get recognition of the chair, and Vice President Fairbanks had to ask them to resume their seats.

This was followed by two long statements from McCumber and from Beveridge, with interjections from Patterson and Foraker. Then followed a brisk debate between these three into which Hale and Teller thrust remarks. Again the Vice President had to request the senators to take their seats. Senators Spooner and Bailey made pessimistic remarks as to the time that was to be taken, Spooner fearing that the five civilized tribes bill would not receive consideration and Bailey objecting to any delay to the railroad rate bill. Senator Dubois made some suggestions and Beveridge offered any number of propositions trying to get a date which would suit everybody. Meanwhile Senator Clapp stood patiently trying to get an opportunity to call up his Indian bill, and Beveridge made some reference to it, saying that he did not think that more than a day would be needed to consider the Indian bill.

"I suggest," said Clapp, who was getting impatient, "that at the present rate of progress a vote will not be reached for several days."

"The senator is ready to take up the Indian bill immediately, I understand," said Beveridge.

"If I ever get a chance," answered Clapp.

Then there was more conversation by Beveridge, Spooner, Carter, Patterson and McCumber, and finally the agreement was reached, with the net result that one additional day had been gained for debate, and instead of Thursday the vote was fixed for Friday.

How Some "Leaks" Grow.

Some years ago Gen. Grosvenor was a member of the committee on rivers and harbors of the House, and this story is told of how he accommodated a newspaper friend. In those days there was a stronger pressure than at present among the correspondents to get the advance items in the river and harbor bill, so that every man who had a friend on the committee was expected to "lay down" on him and get the different items. The year of which this story is told the committee as usual tied itself up and agreed that it would not make any features public until the bill was reported to the House. But as usual some members "leaked." A man from the far west procured the Pacific coast items and one or two other large items enough to make it appear that the bill was getting out. These items were turned over to a man who knew Gen. Grosvenor well and the battle began. The general did not want to "give up," but the newspaper man was persistent, pointing out how nearly every other man on the committee had "taken care of his friends," and that it was not right for the general to allow his friends to get left. The outcome was that the young man got his items in the bill and enough to help out all his friends who were in the plot.

The next morning there was a stormy meeting in the committee on rivers and harbors. Gen. Grosvenor opened the ball with a denunciation of those who made much a pretense of secrecy and yet gave out everything pertaining to their sections. He said that the main features of the bill, as well as whole sections, had been made public, and he knew they were accurate because the newspaper men had shown him the figures. The committee had seldom received such a lecture as Gen. Grosvenor gave them, and a few who had been guilty of "tipping off" a few items to friends regretted that they were not as faithful and virtuous as the Ohio representative. They resolved to follow in his footsteps in the future, and many of them did so. Whenever there is trouble over a "leak" in the committee every member now tries to get his indignant protest in first. Gen. Grosvenor will be missed by the newspaper men as well as by his colleagues, for he was a good "news" man.